Natural Environment and Communiy Preservation

NATURAL ENVIRONMENT AND COMMUNITY PRESERVATION

Introduction

In our world today, there is a great concern for the environment. Much is written and done to protect the areas in which we live. The preservation of the natural and physical environment is essential.

The rural atmosphere and cleaner air are two reasons cited in recent surveys by area residents as very important considerations in choosing Bennet as their home.

Agriculture and Community Development

Bennet is a rural community and agriculture has always had a significant impact on the Village. However, today as more of our residents work in Lincoln and come from non-agricultural backgrounds, the potential for conflicts increases. People have general health concerns because of dust and object to strong odors from livestock and noise associated with grain drying. There are also safety concerns because of the anhydrous ammonia stored in the Village at the Farmers Cooperative Elevator. Of course, one man's complaint is another man's source of income. Some middle ground must be found with which both can live and comply. The Village and businesses involved need to be aware of, and comply with, State and Federal regulations relating to these areas.

Resource District

Bennet is in the Nemaha Natural Resources District. The purpose of the district is to assist in the development and protection of our soil and water resources. Programs of the NRD include:

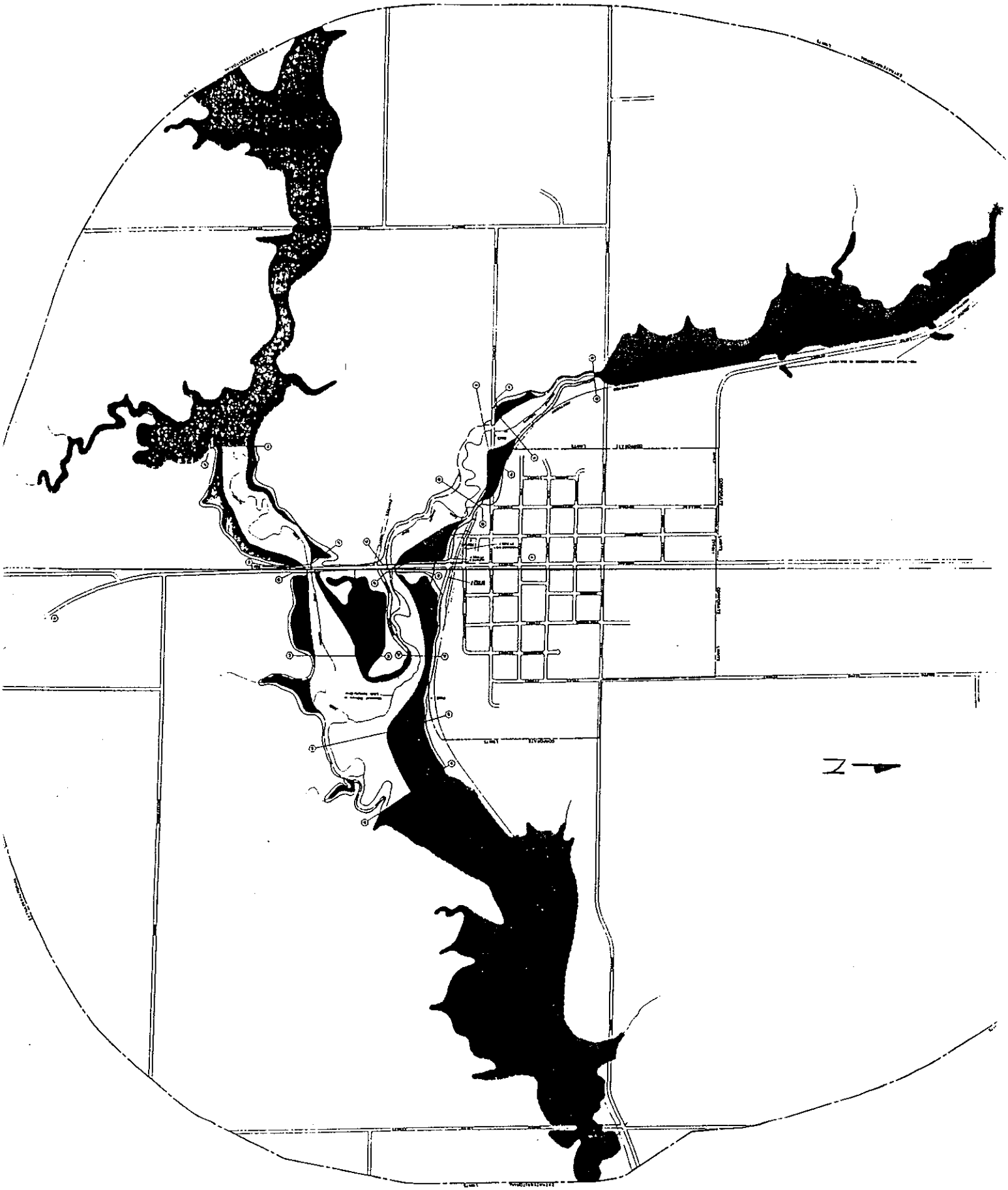
- Ground and surface water conservation
- Soil conservation
- Flood control and damage reduction
- Recreational opportunities
- Waste disposal and pollution control
- Forestry
- Range and wildlife habitat conservation

Two flood control structures have been proposed within a mile south and west of Bennet. These are in the investigation and design stages with construction proposed to begin in 1996.

Flood Plain

A flood plain includes land adjacent to a water course subject to inundation from a flood. These lands have a 100% chance of flooding within a 100 year period.

Map 4 - Flood Plan Map, Village of Bennet



Immediately south of the Village is a unnamed tributary of the Little Nemaha River. This stream does not drain a large area, but is affected by local rain storms, and at times floods the nearby land. The base elevations of flood hazards have been determined and a detailed map is available at the Village office. Development within the flood plain must be carefully monitored and must conform to all requirements of the Village flood plain ordinance.

Climate

Bennet is cold in winter and quite hot with occasional cool spells during the summer months. During the winter, precipitation frequently occurs as snowstorms. During the warm months when warm moist air moves in from the south, precipitation is chiefly showers, which are sometimes intense.

In winter the average temperature is 27 degrees Fahrenheit, and the average daily minimum temperature is 17 degrees. In summer the average temperature is 76 degrees, and the average daily maximum temperature is 86 degrees. The average yearly precipitation is around 29 inches, with about 70% of that falling from April through September. The sun shines 70% of the time possible in summer and 60% in winter. The prevailing wind is from the south, averaging 12 miles per hour in the spring.

Geology

Bedrock in the Bennet area is Lower Permian age limestone of the Council Grove Group. This limestone crops out along the Little Nemaha River south of town and along the large tributary that joins the river from the northwest. A quarry on the Charles Genuchi homestead provided limestone for houses in the area and was used in the construction of some buildings that housed State government in Lincoln. The quarry is no longer active.

Overlying the limestone bedrock is unconsolidated sediment of the Quaternary age. Stream alluvium, glacial till, and loess (wind deposited silt and clay) are all exposed at the surface and are the parent material of the soils found in the Bennet area.

Soils

Bennet is bordered by three Soil Associations. Soils of the Kennebec-Nodaway-Zook Association formed in the alluvium of the modern river flood plain along the Little Nemaha River south and east of Bennet. The danger of flooding limits the use of soils in this association to primarily row crop farming and pasture land. Adjoining the Kennebec-Nodaway-Zook Association are the soils of the Pawnee-Burchard Association. These soils, formed in glacial till, are found on the slopes and ridges south of the Little Nemaha. This till is clayey and contains cobbles, pebbles, and occasionally boulders of granite and quartzite. On the gentler slopes these soils are farmed. The steeper slopes support stands of grass and deciduous trees, and are pastured or left as wildlife habitat. The clayey and stony nature of these soils, along with their slope, limits them to these uses. Modification of engineered structures must be made so they withstand the shrink-swell of the clay and overcome poor drainage.

To the west, north, and northeast of Bennet are the soils of the Wymore-Pawnee Association. Pawnee soils formed in glacial till which is exposed on the lower elevations of the hills adjacent to the drainage. These are the clayey, poorly drained soils also associated with Burchard soils. Wymore soils formed in loess on divides and side slopes of uplands. Most of the Village of Bennet is built on Wymore soil. Areas of Wymore and Pawnee soil surrounding Bennet are farmed or support farmsteads. The Wymore subsoil is clayey but not as much as the Pawnee soil. Shrink-swell of the clay limits its use unless accounted for in the design of structures.

The soils and geology of the area will play a role in the future development of Bennet. Where depth to limestone is shallow, problems digging basements and installing utilities are to be expected. Areas of Wymore soils are the most desirable for development of housing, parks, schools, and businesses which brings such desires in direct conflict with agricultural interests. Flooding and the internal limitations (drainage, shrink-swell) of soils will add to the cost of construction and maintenance of developments made on these soils. Consideration of the limitations imposed by the geology and soils of the area surrounding Bennet must be primary when planning future developments.

More specific information of the soils in the Bennet area can be found in the Soil Survey of Lancaster County Nebraska, available from the Soil Conservation Service or the Conservation and Survey Division of the University of Nebraska. The Conservation and Survey Division also has several publications on the geology of eastern Nebraska and its economic importance both now and historically.

Historic Preservation

Preservation of buildings of historical value is an important way to help maintain a sense of our past. Many of the buildings of significance in Bennet have already been destroyed. According to the Nebraska State Historical Society only two buildings of historical significance still exist in Bennet. One of these is the old depot from the Burlington Railroad. The depot has been moved from its original location. The main building of interest is the Post Office which was originally built as a bank. Some modifications have been made to the windows of the building, as well as changes to the interior. The old vault does still exist.

Conclusions

The natural environment influences development of the Village. In consideration of agricultural use, flood plain and soils, future development will most likely be directed to the north and east.

Recommendations

1. The Village should keep abreast of the plans and activities of the NRD, especially as it pertains to flood control structure plans near the Village. Efforts should be made to insure public access to the lake to be constructed near 148th and Shiloh Road.

2. The Village should work with the Farmers Cooperative Elevator in an attempt to relocate the anhydrous ammonia tanks outside of the Village.
3. Consideration should be given to the historic preservation of the old Citizens Bank building now occupied by the Post Office.